CLAIMS

1. A process for the production of an immunogenic compound comprising the steps of
   (a) inducing necrosis by a temperature of more than 41.2°C for at least 15 minutes in tumor cells; and
   (b) lysing said necrotic tumor cells so as to obtain a lysate.

2. The process of claim 1, wherein necrosis is induced in tumor cells selected from the group consisting of tumor cell lines, cells derived from primary tumor material, cells derived from cell populations of primary tumor material and/or metastases including micrometastases.

3. The process of claim 1 or 2, wherein said induction of necrosis is achieved by incubating said tumor cells at a temperature of more than 42°C.

4. The process of any one of claims 1 to 3, wherein said induction of necrosis is achieved by incubating said tumor cells at a temperature in the range of 45°C to 55°C.

5. The process of any one of claims 1 to 4, wherein said induction of necrosis is achieved by incubating said tumor cells at a temperature in the range of 45.5°C to 47°C.

6. The process of any one of claims 1 to 5, wherein said induction of necrosis is performed in the range of 2 to 3 hours.

7. The process of any one of claims 1 to 6, wherein more than 40% of said tumor cells are necrotic after induction of necrosis.

8. The process of any one of claims 1 to 7, wherein more than 70% of said tumor cells are necrotic after induction of necrosis.

9. The process of any one of claims 1 to 8, wherein said tumor cells are genetically engineered, mutated or infected by oncogenic viruses.

10. The process of any one of claims 1 to 9, wherein said tumor cells are autologous and from the same or from different tissues, organs or cell origin in a species.

11. The process of any one of claims 1 to 9, wherein said tumor cells are allogeneic.

12. The process of any one of claims 1 to 9, wherein said tumor cells are syngenic.

13. The process of any one of claims 1 to 9, wherein said tumor cells are xenogenic.

14. The process of any one of claims 1 to 13, wherein more than one type of tumor cell is used and wherein the tumor cells are from the same or different individuals, tissues, cell types or tumors.

15. The process of any one of claims 1 to 14, wherein said tumor cells are NM-F9 cells (DSMZ deposit No DSM ACCC2606) or NM-D4 cells (DSMZ deposit No. DSM ACC2605).

16. A lysate obtainable by the process of any one of claims 1 to 15.

17. Dendritic cells loaded with the lysate of claim 16.

18. A composition comprising a lysate of claim 16 or dendritic cells of claim 17.

19. The composition of claim 18, which is a pharmaceutical composition.

20. The composition of claim 18, which is a vaccine composition.

21. The pharmaceutical composition of claim 20 or the vaccine composition of claim 20, which is optionally combined with an adjuvant.

22. The dendritic cells of claim 17 or the composition of claim 18, wherein said dendritic cells are immature.

23. The dendritic cells of claim 17 or the composition of claim 18, wherein said dendritic cells are mature.

24. A method for the production of a vaccine composition comprising the step of combining a cell lysate of claim 16 or the dendritic cells of claim 17 with an adjuvant.

25. A method for the production of a pharmaceutical composition comprising the step of combining a cell lysate of claim 16 with a pharmaceutically acceptable carrier.

26. A method for the treatment or prevention of cancer, tumorous diseases, infections and/or autoimmune diseases comprising administering a therapeutically or prophylactically effective amount of the lysate of claim 16 to an individual, or the pharmaceutical composition of claim 19, 21 or 22 or of the vaccine composition of any one of claims 20 to 22, or dendritc cells of claim 16.

27. Use of the lysate of claim 16 or of the dendritic cells of claim 17 for the preparation of a pharmaceutical or vaccine composition for the treatment or prevention of cancers, tumorous diseases, infections and/or autoimmune diseases.

28. The method of claim 26 or the use of claim 27, wherein said cancer or

tumorous disease is a cancer of the head and neck, lung, mediastinum, gastrointestinal tract, genitourinary system, gynaecological system, breast, endocrine system, skin, childhood, unknown primary site or metastatic cancer, a sarcoma of the soft tissue and bone, a mesothelioma, a melanoma, a neoplasm of the central nervous system, a lymphoma, a leukaemia, a paraneoplastic syndrome, a peritoneal carcinomastosis, a immunosuppression-related malignancy and/or metastatic cancer.

29. The method of claim 26 or the use of claim 27, wherein said infection is bacterial infection, viral infection, fungal infection, protozoal infection and/or helminthic infection.

30. The method of claim 26 or the use of claim 27, wherein said autoimmune disease is allergic encephalomyelitis, autoimmune haemolytic anemia, autoimmune thyroiditis, Hashimoto's disease, autoimmune male infertility, bullous pemphigoid, Celiac disease, Grave's disease, Goodpasture's syndrome, idiopathic thrombocytopenic purpura, insulin-resistant diabetis mellitus, myasthenia gravis, pernicious anemia, pemphigus vulgaris, polyarteritis nodosa, primary biliary cirrhosis, Reiter's disease, rheumatic fever, sarcoidosis, Sjogren's disease, systemic lupus erythematosus, sympathetic ophthalmia, multiple sclerosis and/or viral myocarditis by Cocksakie B virus response.